

Use digital storytelling

to assess student writing

By Cheryl Boes
SIGEE Director



Digital stories are a new form of expression used in more and more classrooms. Students can now use images, soundtracks, and their voice to create a tale that comes to life on the computer screen. As with all stories, writing is at the heart of this task. It is impossible to create a moving digital story without having a proficient piece of written text first. As educators, it is our job to help the students take their ideas and mold them into engaging narratives. Teaching the craft of writing to students is part of the process.

During the SIGEE preconference session on March 8, 2006, participants were lead through the process of creating a digital story step-by-step. Jeanne Biddle from Scott County Schools (<http://www.scott.k12.ky.us/technology/digitalstorytelling/ds.html>) shared her expertise as well as examples of digital stories from her school district. She emphasized the importance of helping students compose proficient written stories before embarking on the task of taking the story digital.

The writing process is a complex task that is developed over many years. Both reluctant and proficient writers will find the digital story interesting. The student's written story will move beyond paper and pencil and become a living piece of art including the student's voice, a soundtrack, and a series of images (photos and/or drawings).

When guiding students through this process, you may want to follow the Seven Elements of Digital Storytelling outlined on the Center for Digital Storytelling Website (<http://www.storycenter.org/>). Here is a brief summary of the seven elements. Visit the Website to obtain more detailed information (<http://www.storycenter.org/memvoice/pages/cookbook.html>).

Seven Elements of Digital Storytelling

Point of View

Help students understand that they can approach a story from various points of view. Teachers can model different storytelling techniques, and also share examples of published literature that is written from different perspectives. A digital story should be personal, and illustrate a passion of the student.

A Dramatic Question

What is the central message of the digital story? Assist students in the art of keeping their audience engaged by helping them define a dramatic question. The dra-

matic question can be stated in the text for young writers; as the writer becomes more sophisticated, the dramatic question may be implied through the actions of the story.

Emotional Content

Most powerful stories contain some content that causes the reader to feel joy, sadness, excitement or another emotion. The student's digital story is generally about a person, place or experience that has had a profound impact on his or her life. Encourage students to share the emotions they experienced in their stories, so others can understand why events are important to them.

The Gift of Your Voice

When students hear their own voice on a recording, sometimes they are embarrassed, or they may not even recognize their own voice. Recording the author's voice telling the story is a key element. Encourage the students to practice and record their narration numerous times, experimenting with the pacing and intonation to see how it can change the context of the message. Guide students away from simply reading their text. One technique suggested on the Website is to construct your voice recording by editing and piecing together the contents of an interview about the events of the story. This may help the

students speak from their heart. A conversational tone of voice is generated through the interview since they are talking to a real person, instead of a computer or microphone. One thing to remember is that if multiple recordings of the story are taken, the best parts of each recording can be edited together to create the final recording.

The Power of the Soundtrack

Music invokes all sorts of emotions. By choosing the right soundtrack, your students can help their audience understand the emotions they experienced during the event. Students are drawn to popular music since that is what they listen to. However, be aware of fair use policies and copyright issues. Students have the right to use popular music for a class project with their peers as an audience. If the stories will be shared with a larger audience such as on a school Website, students should choose royalty-free music or compose their own. Students can compose their own music using Apple's GarageBand (<http://www.apple.com/ilife/garageband/>) or Sony's Super Duper Music Looper (<http://www.sonymediasoftware.com/products/showproduct.asp?PID=535>) for the PC. There are a number of royalty-free music resources if you do not have the time or technology to compose your own soundtracks.

Web resources for royalty-free music:

Soundzabound
(<http://www.soundzabound.com/>)
Sounddogs
(<http://www.sounddogs.com/>)

Economy

Remember that the event or person that a student chooses for the subject of their digital story is quite important to this child. Therefore, they probably have volumes of information, stories and anecdotes to share. Try to help your students focus on the central purpose for the story, and assist them in choosing the best pictures and most important pieces of the narrative to

tell the story. Limiting the total time of the movie and the number of pictures used may seem like you are infringing upon their creative liberties, but you will be doing the students a favor by forcing them to be selective as to what makes the final cut.

Pacing

How will your students keep their audience engaged? Pacing may be the key to making a good story great. When students record their narrative, they should be aware that the pace at which they speak makes a difference. Sometimes leaving silence can be a strategy to let the listener linger on the thought that was just shared, or the silence can create suspense leading up to the next sequence of narration. Help the student understand that there are many ways to express their story. Have them experiment with different pacing variations to see which one fits their story the best.

Assessing a Digital Story

It is important for students to understand the criteria that will be used to assess their digital story before they start. Rubrics clearly define the expectations of the assignment. Provide each student with a copy of the rubric at the beginning of the project. They should keep it handy so it can be referred to throughout the creation process. The rubric allows students to envision a range of possibilities for their story. Create your own rubric at Rubistar (<http://rubistar.4teachers.org/>). Or better yet, ask your students to share the criteria that they look for in an interesting digital story and compose the rubric together.

The rubric should assess a broad range of skills that the students exhibit from the beginning of the task until the end. Be careful to avoid only assessing the final product because each student has different talents, and the process that was followed should be recognized as well. The rubric should assess the writing process as

well as the technology used to create the digital story. You will notice that the following sample rubrics contain the Seven Elements of Digital Storytelling. If you're interested in creating your own rubric, this may be a good place to start. You may also be able to modify one of the sample rubrics to meet your individual classroom needs.

Samples of Digital Storytelling Rubrics

http://rubistar.4teachers.org/index.php?screen=ShowRubric&module=Rubistar&rubric_id=237329&

<http://electronicportfolios.com/digistory/> (Two great rubrics included at the bottom of this website.)

Digital Storytelling Tools

As you create digital stories in your classroom, you may find these resources useful.

Kidspiration/Inspiration: During the planning stages, Kidspiration or Inspiration (<http://www.inspiration.com/>) can help your students organize their ideas before they start to write. Once students have their final draft of their story and have gathered their photos and drawings, the storyboard can be created using Kidspiration or Inspiration. Having students create a storyboard (by hand or on the computer) will allow them to visualize how the story text will interact with the images and soundtrack. This process helps the students understand how to make the technology work for them. They will know the order of the images and which text should narrate each image. This will also help them determine how long the story will be.

iLife: Apple's iLife (www.apple.com/ilife) suite of tools contains iMovie, video editing software that allows students to create their story by combining titles, images, voice recordings, and soundtracks.

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Here, Excel is asking you to name the two variables that you want to compare ("Array1" and "Array2"). It really doesn't matter which variable, quiz scores or absences, you put in which array. But for this example, I'll put quiz scores in Array1 and absences in Array2. To do this, click the button for Array1. The dialog box will shrink down and allow you to click anywhere on the spreadsheet. Now, look at Figure 6. Let's say you want to select quiz scores for the lesson "Intro & Scientific Method," you'd click on the "70" (Mark Adams' score) and drag your mouse down to the last "100" (Paula Wyman's score).

(Note that you do not want to select the 84.2 average score that you calculated earlier.) Once you've made this selection, click the button to return to the CORREL dialog box. You'll notice that Excel has now filled in the information it needs for Array1. For Array2, repeat the same procedure a to select the students' absences, from Mark Adams' 4 absences to Paula Wyman's 2 absences.

Return to the CORREL dialog box, then click "OK," and in the empty cell you originally selected for Excel to put r, you will see your correlation coefficient. Given the data above, r equals -.60. This tells us that there is a moderately strong negative correlation between quiz scores and absences. In other words, when one goes up, the other goes down.

Try the same procedure, but with different combinations of variables (different quiz scores, or with absences, or number of tardies). You can also combine what we've covered in this article—insert a column between Mitosis and # of Absences or use the blank cells after # of Tardies, then use the function button to calculate each student's average quiz score over the course of the six lessons. Then correlate this result with absences or tardies to see if there is a relationship between overall quiz performance and absences or tardies.

This is just an introduction to the kinds of statistics that you can calculate based on data as readily available as your grade book. By simply exploring your student data, you can glean a wealth of information about your students, their needs, your priorities, and, just like Ms. Logan, you will find analytical steps to success. 🖨

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GarageBand lets students compose their own royalty-free music. iPhoto enables students to organize all of their digital images, and then import them into iMovie. The iTunes software permits students to legally download popular music, and will also convert GarageBand compositions into the proper format for importing into iMovie. iLife provides the students with all the tools necessary to create an engaging digital story.

Movie Maker: This software will allow students to create, edit and share their digital stories. It is made for Windows and is simple to use. Movie Maker (<http://www.microsoft.com/windowsxp/using/moviemaker/default.mspx>) contains titles, transition and effects to make the movie appear like it was made by a pro. 🖨

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CORREL X ✓ = =CORREL(B2:B13)									
B2:B13									
	Student	Intro & Scientific Method	Spontaneous Generation Theory	Chemicals of Life & Enzymes	Cell Structure/ Function	Osmosis/ Diffusion	Mitosis	# of Absences	# of Tardies
1	Adams, Mark	70	75	65	75	60	55	4	5
2	Bettie, Jamie	80	100	100	100	95	95	1	2
4	Durant, Rae	100	95	90	95	80	40	0	0
5	Fox, Thomas	95	100	90	95	80	60	3	0
6	Friedlan, Jo	95	85	85	80	90	40	2	1
7	Holmes, Mike	100	80	60	75	70	75	1	0
8	O'Brien, Jenny	85	75	60	85	100	80	0	1
9	Peet, Ronald	75	85	80	95	95	55	0	0
10	Robis, Chantal	80	95	80	85	85	35	1	0
11	Smith, George	75	60	50	75	60	45	6	7
12	Tyler, Graham	55	60	55	35	75	35	7	5
13	Wyman, Paula	100	90	100	85	45	45	2	0
14		84.2	83.3	76.3	81.7	77.9	55.0		

Figure 6. The gradebook spreadsheet with one variable (Array 1) selected (quiz results for Intro & Scientific Method). To correlate these scores to # of Absences, you'd highlight the data in that column for Array2.